

FIG. 1

0984765-050101  
101050-5924860

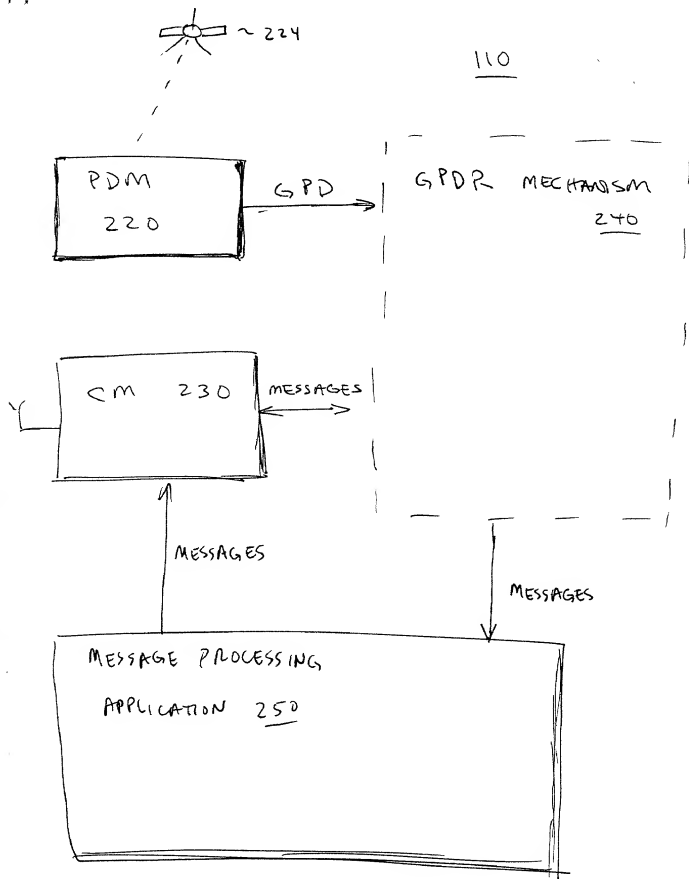


FIG. 2

The diagram illustrates the Message Transfer Facility (MTF) architecture. It consists of the following components and their interactions:

- RECENT MESSAGE DETERMINATION FACILITY 310**: Receives a **MESSAGE** and stores it in the **RECENT MESSAGE BUFFER 314**. It sends a **MESSAGE** to the **DISCARD FACILITY 320** and the **DESTINATION CHECKER 330**.
- DISCARD FACILITY 320**: Receives a **MESSAGE** from the Recent Message Determination Facility.
- DESTINATION CHECKER 330**: Receives a **MESSAGE** from the Recent Message Determination Facility and sends a **MESSAGE** to the **LAST NODE DISTANCE COMPARATOR 340**.
- LAST NODE DISTANCE COMPARATOR 340**: Receives a **MESSAGE** from the Destination Checker and sends a **MESSAGE** to the **RE-TRANSMISSION UNIT 350** and the **DEPTH COUNT FACILITY 360**.
- RE-TRANSMISSION UNIT 350**: Receives a **MESSAGE** from the Last Node Distance Comparator and performs a **LAST PDS. FIELD UPDATE** (354).
- DEPTH COUNT FACILITY 360**: Receives a **DEPTH COUNT** and a **MESSAGE** from the Last Node Distance Comparator. It also receives **USER INPUT**. It contains two sub-units:
  - USER PROGRAMMABLE MAX. DEPTH COUNT ADJUST. UNIT 364**
  - AUTOMATIC DEPTH COUNT ADJUSTMENT UNIT 368**

The flow of messages is as follows: **MESSAGE** → **RECENT MESSAGE DETERMINATION FACILITY 310** → **DISCARD FACILITY 320** and **DESTINATION CHECKER 330**. **DESTINATION CHECKER 330** → **LAST NODE DISTANCE COMPARATOR 340**. **LAST NODE DISTANCE COMPARATOR 340** → **RE-TRANSMISSION UNIT 350** and **DEPTH COUNT FACILITY 360**. **DEPTH COUNT FACILITY 360** also receives **DEPTH COUNT** and **USER INPUT**.

SOURCE DISTANCE  
EVALUATION  
FACILITY 380!

FIG. 3

R M D F 310

R M B 314

RECEIVED MSG 710

MSG\_N-1  
420

MSG\_N-2  
430

MSG\_N-M  
440

SRC 414

SRC 424

SRC 434

SRC 444

DEST 416

DEST 426

DEST 436

DEST 446

MSG ID 418

MSG ID 428

MSG ID 438

MSG ID 448

↑ PREDET. TIME INTERVAL 464

BUFFER SIZE  
DETERMINATION  
FACILITY 460

FIG. 4

# DEPTH COUNT FACILITY 360

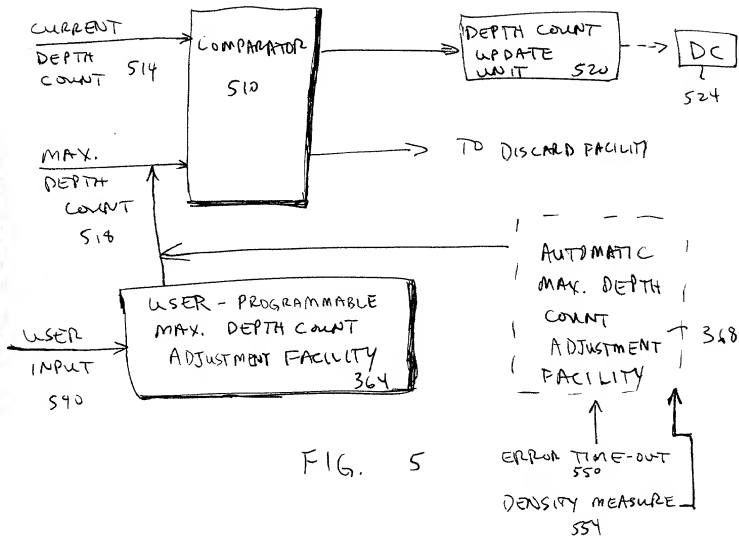


FIG. 5

0984765-050101

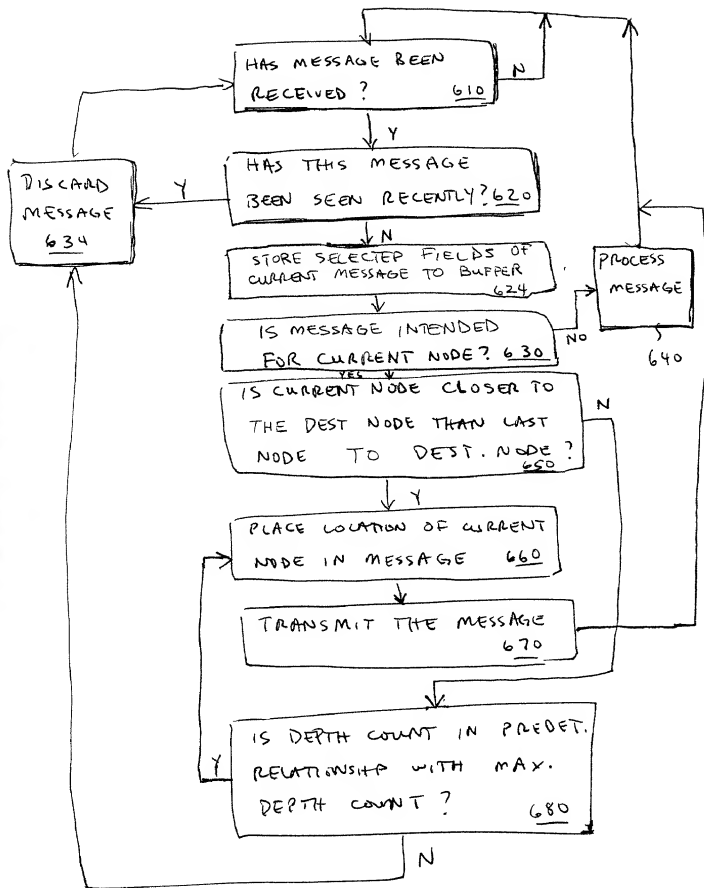


FIG. 6

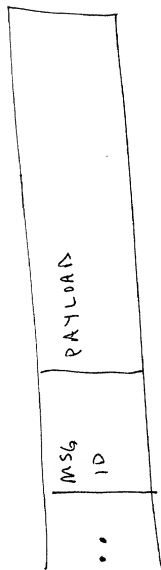
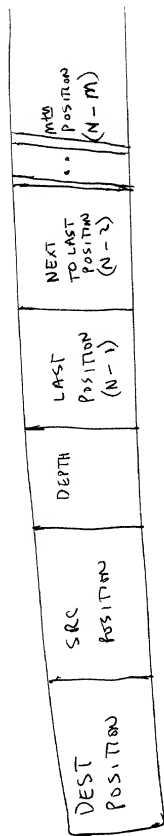


FIG. 7